



IBM Docket No. RAL92001002IUS1/1963-7418

**DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION**

a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**DYNAMIC MEASUREMENT OF COMMUNICATION CHANNEL
CHARACTERISTICS USING DIRECT SEQUENCE SPREAD SPECTRUM (DSSS)
SYSTEMS, METHODS AND PROGRAM PRODUCTS**

the specification of which is identified by the attorney (IBM) Docket Number appearing above.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

<u>Number</u>	<u>Country</u>	<u>Day/Month/Year</u>	<u>Priority Claimed</u>
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I hereby claim the benefit (a) under Title 35, United States Code, §119(c) of any U.S. application listed below and identified as a provisional application or (b) under Title 35, United States Code, §120 of any U.S. application listed below and not identified as a provisional application, and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior U.S. application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information material to the patentability of this application as defined in Title 37, Code of Federal Regulations, §1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application

Prior U.S. Applications

<u>Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Page 1 of 2

IBM Docket No. RAL920010021US1/1963-7418

As a named inventor, I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: Daniel E. McConnell, Reg. No. 20,360; Joscelyn G. Cockburn, Reg. No. 27,069; Scott W. Reid, Reg. No. 42,098; George E. Grosser, Reg. No. 25,629; Martin J. McKinley, Reg. No. 31,782; John Bruce Schelkopf, Reg. No. 43,901; John D. Flynn, Reg. No. 35,137; Joseph C. Redmond, Jr., Reg. No. 18,753; John E. Hoel, Reg. No. 26,279; and Christopher A. Hughes, Reg. No. 26,914.

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Page 2 of 2

16 (g) comparison apparatus which compares the correlation value of the PN code to the
17 threshold value; and

18 (h) analysis apparatus which determines if the correlation variable is above or below
19 the threshold; where a correlation value below the threshold is indicative of unreliable
20 transmission through the channel and a correlator value above the threshold is indicative or
21 reliable transmission through the channel.

1 17. A medium, executable on a computer system for dynamic measurement of a
2 communication channel using Direct Sequence Spread Spectrum (DSSS) communication system,
3 comprising:

4 (a) program instructions generating a Pseudo Noise (PN) code where ($\gamma_0 = 1/T$);

5 (b) program instructions modulating a carrier ($\cos(2\pi f_c t)$) with the PN code;

6 (c) program instructions providing the PN coded data signal [$s(t)$] to a correlator via
7 a communication channel that includes a channel noise signal for determining transmission

8 characteristics of the channel; and

9 (d) program instructions determining a correlator value for extracting the PN code
10 from the coded data signal, where the correlator value is the wanted exact measure of the loss of
11 the channel under test.